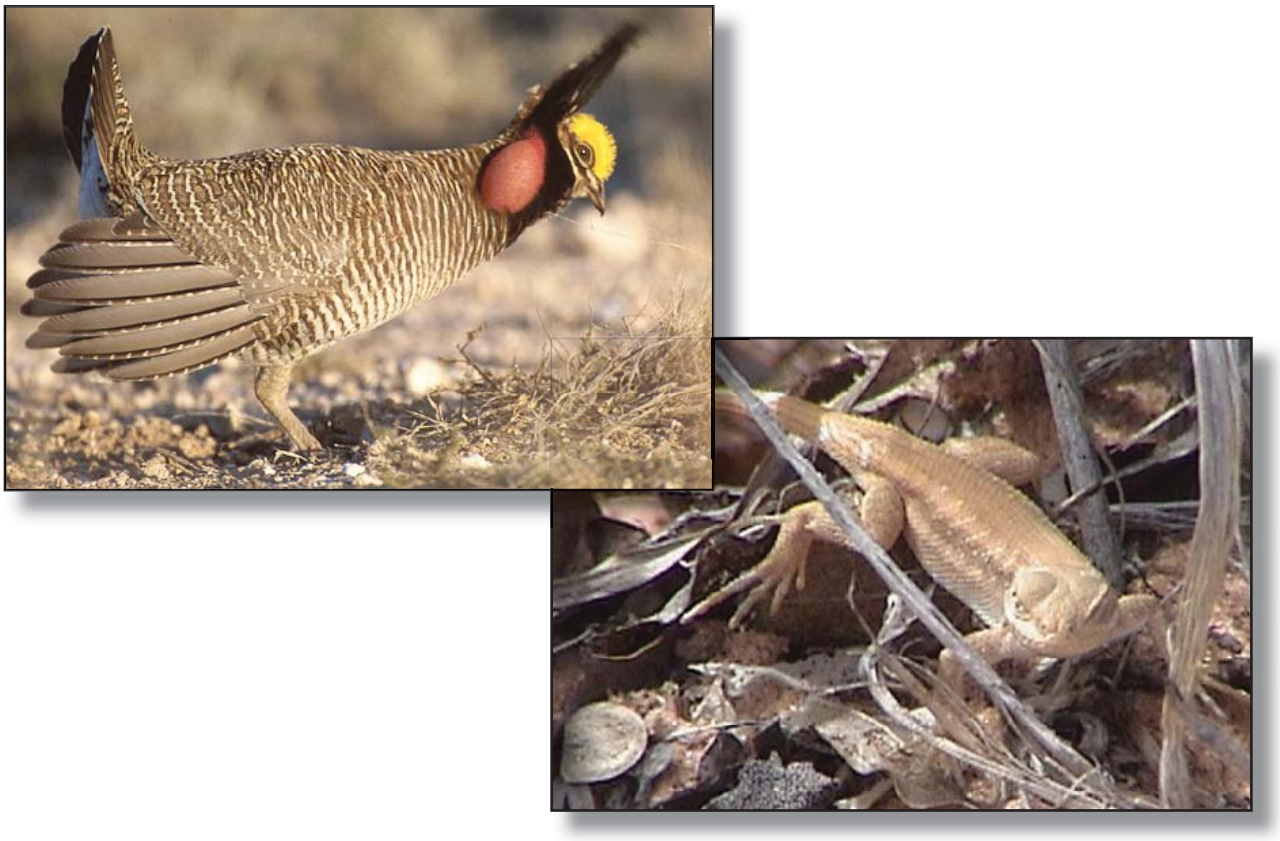
Collaborative Conservation Strategies for the Lesser Prairie-Chicken and Sand Dune Lizard in New Mexico

Findings and Recommendations of the New Mexico LPC/SDL Working Group

Executive Summary



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Executive Summary

The Lesser Prairie-Chicken (LPC) lives on the southern Great Plains, including parts of Colorado, Kansas, New Mexico, Oklahoma and Texas. / Don Mac Carter

After more than two years of negotiation, a broad strategy for the protection of two at-risk species in southeastern New Mexico has been agreed to by state and federal agencies, ranchers, oil and gas industry representatives, and conservation interests.

This document presents the findings and recommendations of the New Mexico LPC/SDL Working Group, a multi-party group of stakeholders with interests in conservation management and land use decisions regarding two candidate species for federal listing under the Endangered Species Act: the Lesser Prairie-Chicken (LPC) and Sand Dune Lizard (SDL).

The agreements are spelled out in the recently published Collaborative Conservation Strategies for the Lesser Prairie-Chicken and Sand Dune Lizard in New Mexico, of which this document is the executive summary. (Please see the bottom of Page 9 for instructions on how to obtain copies of the complete text.) One of the first achievements of its kind addressing multiple candidate species, this report outlines a comprehensive approach for reducing biological threats while affirming and protecting economic values and traditional land uses. It applies across a large region including portions of Quay, De Baca, Curry, Chaves, Roosevelt, Eddy and Lea counties.

The Sand Dune Lizard (SDL) lives in a small area of southeastern New Mexico and west Texas. / New Mexico Department of Game and Fish

Candidate Species and the Southeast New Mexico Working Group

The LPC is a prairie grouse species native to the southern Great Plains, including parts of Colorado, Kansas, New Mexico, Oklahoma and Texas. The SDL is a lizard species native to a small area of southeastern New Mexico and west Texas. As candidate species, both have been found warranted for listing as threatened or endangered by the U S Fish and Wildlife Service. Central concerns for both species are the loss, fragmentation or alteration of habitat.

Stakeholders achieved shared understanding of technical and economic issues through months of negotiation. / Ric Richardson

Concerned over the status of the two species, state and federal agencies and the Wildlife Management Institute proposed in late 2002 that a "Working Group" of appropriate public and private stakeholders begin meeting to devise a collaborative conservation strategy. Following a period of formal status assessment and recruitment, the Working Group began meeting in January 2003 under the guidance of a professional facilitation team.

The goal statement adopted by the Working Group was:

> *To create a conservation strategy for the management of shinnery oak and sand sage-grassland communities in southeastern and east-central New Mexico, recommending a range of specific actions to enhance and secure populations of Lesser Prairie-Chickens and Sand Dune Lizards, so that federal or state listing of these species is not needed, while protecting other uses of the land.*

In order to design a consensus strategy aimed at protecting both vulnerable species and human livelihoods, representatives had to reach a high level of shared understanding regarding the biology of the two species. Equally important, stakeholders had to develop a knowledge of and concern for each other's economic and other interests, particularly in the context of how these might be affected by any proposed conservation action. Shared understandings were achieved by thorough review and discussion of scientific and management literature, and months of communication between the affected parties.

Don MacCarter

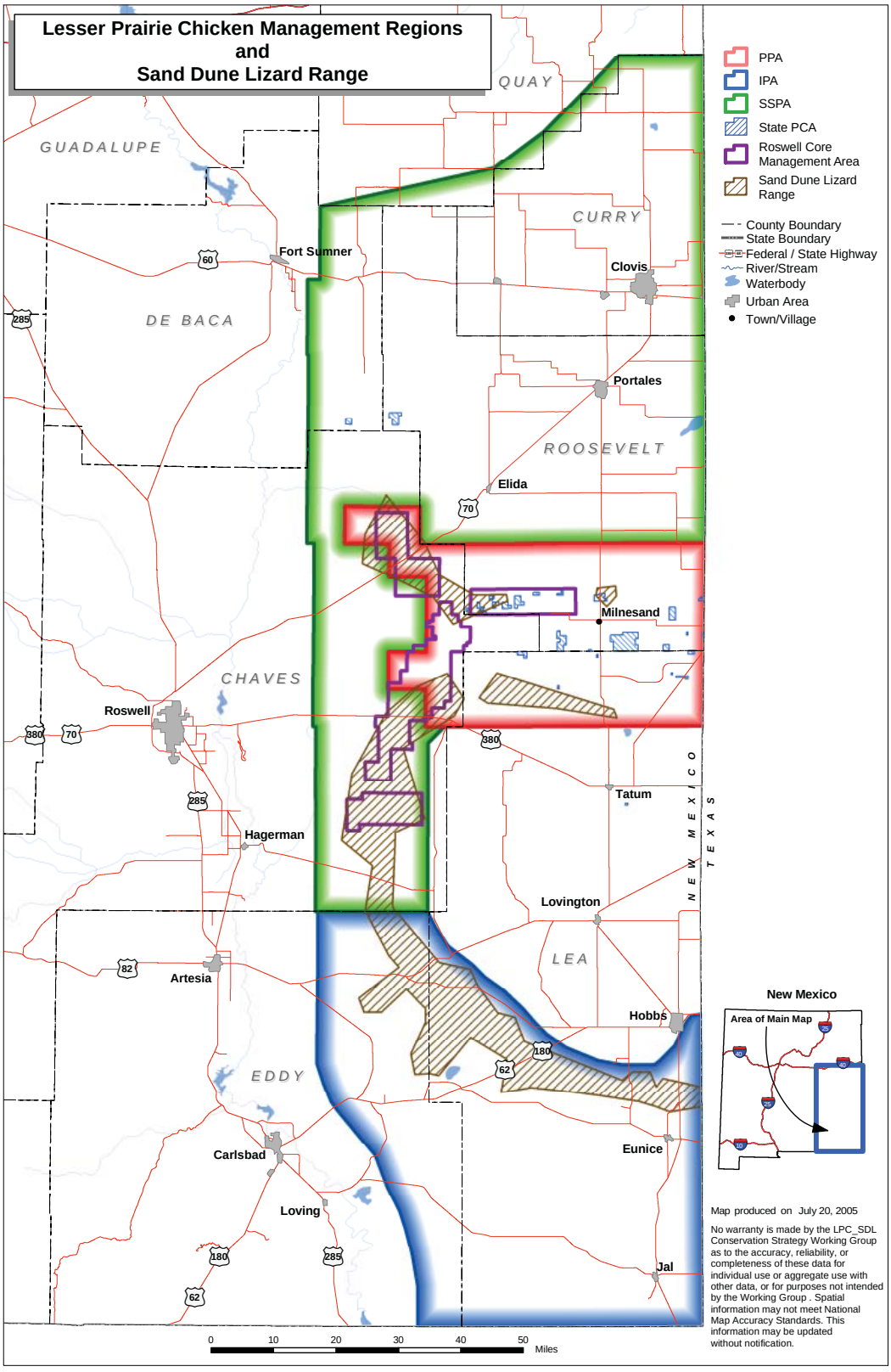
Lesser Prairie-Chicken

"Sand shinnery" vegetation communities, dominated by dwarf shinnery oak and grasses, constitute the majority of LPC habitat in southeastern New Mexico. The life cycle of the LPC revolves around the social groupings known as leks, and mating display areas known as lek sites. Although located in open areas, lek sites can exist only where suitable tall grass and shrub cover for nesting, brood-rearing, and winter feeding can all be found in fairly close proximity. Quality nesting habitat is thought to be the primary driver of LPC population growth or decline.

Climatic variation on seasonal, annual, or longer timescales is an important determinant of habitat quality for LPCs in New Mexico. Population increases associated with above-average rainfall in the 1980s were followed by a steep downward trend in the dry 1990s. Livestock grazing also plays a major role in determining habitat quality.

Heavy grazing may reduce or eliminate residual tall grass cover needed for nesting, particularly in years of low rainfall. Habitat quality may also be reduced by the spread of mesquite or other shrubs, and by improper or excessive use of herbicides for shinnery oak control.

Overall LPC population size and geographic range have been greatly reduced since the 1800s due to the widespread conversion of native prairie grasslands to agricultural uses. LPC populations still contend with habitat loss and fragmentation due to various forms of development and changing land uses. Conversion of rangeland habitat to irrigated agriculture continues in some areas of east-central New Mexico. Roads and infrastructure development associated with the oil and gas industry have led to reductions in usable habitat, particularly in the southeast. Such impacts are heightened by the LPC's tendency to avoid nesting near areas of human activity or large structures.



The planning area has been classified into three management regions, based on LPC population status. These follow a general north-south pattern, and include a Sparse and Scattered Population Area (SSPA) where leks are present in low numbers and isolated from one another, a Primary Population Area (PPA) where over 90% of the state LPC population resides, and an Isolated Population Area (IPA) in the south where a single known lek and small scattered groups of birds remain.

Sand Dune Lizard

Bureau of Land Management - Carlsbad Field Office

Distribution of the SDL is restricted to sand dune habitat in Lea, Eddy and south Chaves counties. The SDL occurs only in large and deep sand dune "blowouts" (open, low-lying areas between active dunes) in areas dominated by shinnery oak. SDL populations may be threatened by activities that remove shinnery oak, or otherwise alter the configuration of shrub and grass cover and blowout patches in dune areas. The two main threats faced by the SDL are the removal of shinnery oak by herbicide application, and disturbance of dune areas by roads and infrastructure from activities such as oil and gas development.

Land Uses and Economic Interests

Ranching

Ranching is the predominant land use in sand shinnery habitat in New Mexico. Livestock grazing contributes significantly to the regional economy, and area ranchers have expressed a strong interest in avoiding the need for federal listing of species. Most ranches include both private land and federal or state allotments. The loss or severe restriction of a grazing permit may result in an entire operation becoming no longer viable, and also affects property values. Thus the Working Group recognizes that ranchers who voluntary adopt grazing practices intended to benefit at-risk species should receive appropriate economic compensation, as well as protection from future additional regulatory burdens in the event of listing.

Ranching and livestock are an important part of the history and economy of the region / Bureau of Land Management

The area is one of the major United States petroleum-producing regions, benefitting local citizens and the state of New Mexico. / Bureau of Land Managment

Oil and Gas

The planning area of southeastern and east-central New Mexico is also one of the major petroleum-producing regions of the United States. Across the area roughly 10,000 people are directly employed in oil and natural gas extraction, and some 23,000 are employed in related occupations. Much of the economic well-being of this region is tied to the employment, royalties, and taxes generated by petroleum production. Land management decisions that restrict or preclude full mineral development of certain state and federal lands thus affect the flow of revenues into local and state economies.

Conservation Strategy

Lesser Prairie-Chicken Strategies

Working Group strategies for the LPC are divided into nine "pathways" focusing on different types of conservation or management actions. Pathways 1-5 present sets of recommendations designed to address all major categories of threat facing the species. Pathways 6-9 describe support strategies for on-the-ground efforts. In addition to the three management regions listed above, the Working Group recognizes the existing Roswell Bureau of Land Management (BLM) Core Management Area (CMA) for the LPC. These four geographic units reflect important differences not only in species conservation status, but also in patterns of land use and surface ownership.

Don MacCarter

Pathway 1 addresses the need to maintain quality rangeland for nesting and brood-rearing and presents specific standards for evaluating habitat quality. Key recommendations include:

- Establishment of a coordinated program of financial compensation for ranchers who choose to manage grazing or undertake other actions to improve LPC habitat.
- Project funding and coordination for reversing mesquite encroachment in sand shinnery habitat.
- Limited use of herbicide to remove shinnery oak only when certain specified criteria are met.
- Measures to enhance habitat quality in Conservation Reserve Program (CRP) fields including the planting of native grasses.

Funding for all of these strategies may be available through the Environmental Quality Incentives Program (EQIP) and several other existing state and federal programs.

Pathway 2 addresses the loss or fragmentation of habitat that may be a consequence of energy development activites. This pathway presents an innovative set of guidelines for managing new mineral leasing and development in the PPA, based on sophisticated mapping and habitat analysis. Key recommendations for the PPA include:

Success for LPC populations depends on quality rangeland for nesting and brood-rearing / BLM - Carlsbd Fiels Office

- Deferral of new mineral leasing in suitable and occupied habitat, while allowing continued leasing in other areas.
- Coordinated tracking of changing acreages in each habitat category over time.
- Guidelines for lifting lease deferrals in exchange for increases in suitable or occupied habitat, whether due to reclamation efforts or other factors.
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Guidelines for protecting occupied habitat in the SSPA and IPA are also presented, as are strategies for minimizing impacts of new mineral development. These include the use of negotiated conditions of approval and plans of development on federal leases, and timing and noise stipulations as needed. Pathway 2 also contains specific recommendations for minimizing surface disturbance and carrying out site reclamation.

Pathway 3 describes various means by which important areas can be maintained and managed as LPC habitat. Principal elements include:

- Consolidation of BLM property in its Roswell CMA, through land exchanges with the New Mexico State Land Office, to help direct future development outside of suitable habitat.
- Recommendations for a comprehensive management plan for the New Mexico Department of Game and Fish-administered Prairie-Chicken Areas.
- Establishment of five new LPC reserve areas, two in the IPA and three in the SSPA. Each would be 4 square miles or larger, on lands purchased from willing sellers or secured long-term lease agreements, or by dedication of public lands.
- Establishment of Candidate Conservation Agreements with Assurances (CCAAs) to encourage conservation efforts on non-federal lands by offering protections from future regulatory requirements.

Research activites are ongoing to establish good data about LPC populations. / Dawn Davis

Pathway 4 focuses on long-term planning for re-establishing LPC populations in the southern portion of the range (the IPA). Strategy elements include:

- Analysis and prioritization of remaining potential habitat areas. Low priority areas would be removed from consideration from special management, while high priority areas may form the building blocks for future reintroduction sites.
- Establishment of a captive breeding and LPC reintroduction program in southeastern New Mexico. A captive propagation facility near Carlsbad would provide a source population for reintroducing birds to unoccupied parts of the historic range, including Department of Energy lands at the Waste Isolation Pilot Project facility.

Pathway 5 presents additional measures for boosting LPC populations by directly targeting specific causes of mortality or low nesting success. Strategies include:

Dawn Davis

- Limited use of predator control to reduce mortality in isolated lek areas.
- Management and education efforts to reduce poaching and accidental shooting.
- Road closures and other management to limit disturbance by off-road vehicles.
- Limited grain crop plantings for leks in isolated areas with poor habitat quality.

Pathway 6 outlines research and monitoring needs, including specific recommendations for LPC surveys and habitat monitoring. It also discusses criteria by which overall success of conservation efforts may be evaluated.

Pathway 7 discusses strategies for conservation education and outreach.

In Pathway 8, the group recommends that a position of "Eastern Plains Conservation Coordinator" be established and funded, with responsibilities to coordinate and facilitate the implementation of strategies for the LPC and SDL. This would include working with landowners, seeking to initiate partnership projects, and seeking funding from a variety of sources as described in Pathway 9.

Many elements for the conservation of the Lesser Prairie-Chicken apply equally to the Sand Dune Lizard. / Bureau of Land Managment

Sand Dune Lizard Strategies

Various elements of the LPC conservation pathways apply equally to the SDL, including strategies for education and outreach, coordinating implementation, generating funding, and securing landowner protections through CCAAs. Beyond these, specific conservation recommendations for the SDL include:

- Cessation of herbicide spraying to remove shinnery oak within 500 meters of occupied or suitable SDL habitat.
- Maintenance of dispersal corridors of unsprayed shinnery oak between dune areas less than 2000 meters apart.
- No new oil or gas wells within 100 meters of sand dune areas in suitable or occupied SDL habitat.
- Well density not exceeding 13 per square mile in suitable habitat areas.

Additional recommendations are made for minimizing impacts of existing development, use of "thumper trucks" for seismic exploration, and off-road vehicles.

The final chapter of the document announces closure of the strategic planning efforts of the Working Group, and the formation of an Implementation Team to move collaborative conservation efforts forward into a new phase of operational planning and project implementation. A number of significant conservation actions on behalf of the LPC and SDL are already under way. These represent a significant first step toward reducing threats faced by the two species.

Copies of the Executive Summary and complete text of the *Collaborative Conservation Strategies for the Lesser Prairie-Chicken and Sand Dune Lizard in New Mexico* may be obtained at www.nm.blm.gov or www.fws.gov/ifw2es/library/. Copies of these documents may also be obtained on a compact disk by contacting one of the following agencies:

The New Mexico BLM State Office: P.O. Box 27115, Santa Fe, New Mexico, 87502, Tele: (505) 438-7406
The U S Fish and Wildlife Service, New Mexico Ecological Services Field Office, 2105 Osuna, NE, Albuquerque, NM 87113, Tele: (505) 761-4707

Southeast New Mexico Lesser Prairie-Chicken/ Sand Dune Lizard Working Group

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Southeast New Mexico Lesser Prairie-Chicken/ Sand Dune Lizard Working Group

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Lesser Prairei-Chicken, Don MacCarter
Sand Dune Lizard, Bureau of Land Management